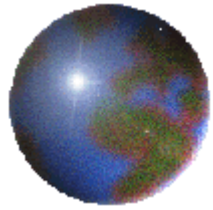
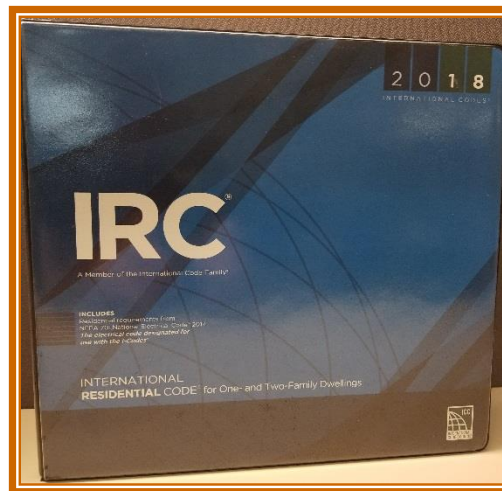




City of Yuma
Residential Building Code:
The



2018 International Residential Code®





2018 International Residential Code®

- ✚ Replaces the 2012 IRC.
- ✚ Includes all one- and two- family dwellings and townhouses.
- ✚ Provides consistency through coordination with the 2018 International Building Code®.



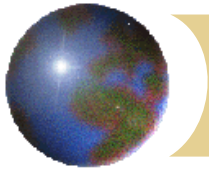
Document Availability

- ✿ A copy of the 2018 IRC is available for review at the City Clerk's office and Department of Community Development.
- ✿ The 2018 IRC is available to view for free online or purchase at www.iccsafe.org or by phone at 1-800-786-4452. Softcover: \$108.00.
- ✿ City of Yuma Amendments to the 2018 IRC are available on City of Yuma Website or from the Community Development Customer Counter at the cost of reproduction: Approx. \$6.50



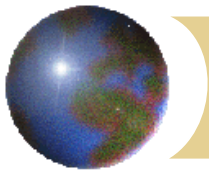
Important Dates

- ❖ 2018 IRC Code is currently in effect, as of January 5, 2019. A 90-Day Transition period is in effect until April 1, 2019, during which time either the 2012 IRC or 2018 IRC Codes may be used.
- ❖ Standard Plans need to be updated and approved during the transitional period.
- ❖ Permit applications in process and permits already issued under the 2012 IRC will be inspected under that Code.
- ❖ Use of the 2018 IRC is mandatory for new permit applications on April 1, 2019.



Review Objective

- ✚ Inform the construction community about the new 2018 IRC Code
- ✚ Review the code updates and important changes from the 2012 IRC Code

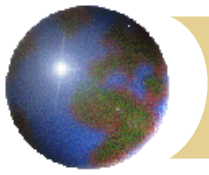


Chapter 1 Administration



R105.11 Construction Debris

- ✿ **Construction Debris. Construction sites shall be kept reasonably clean of construction debris during the course of construction.**
- ✿ **Inspections may be withheld if site is not reasonably clean or if conditions are unsafe for inspection personnel.**

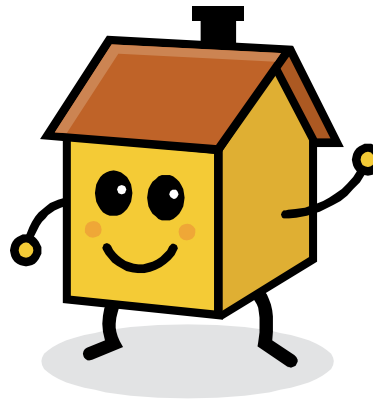


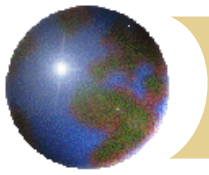
Chapter 1 Administration (cont.)

R108 Fees

\$\$\$

- ✚ **Permit Valuation & Fee Table remains unchanged.**
- ✚ **Permits issued on Standard Plans increased from \$25.00 to \$50.00.**





Chapter 3-Building Planning

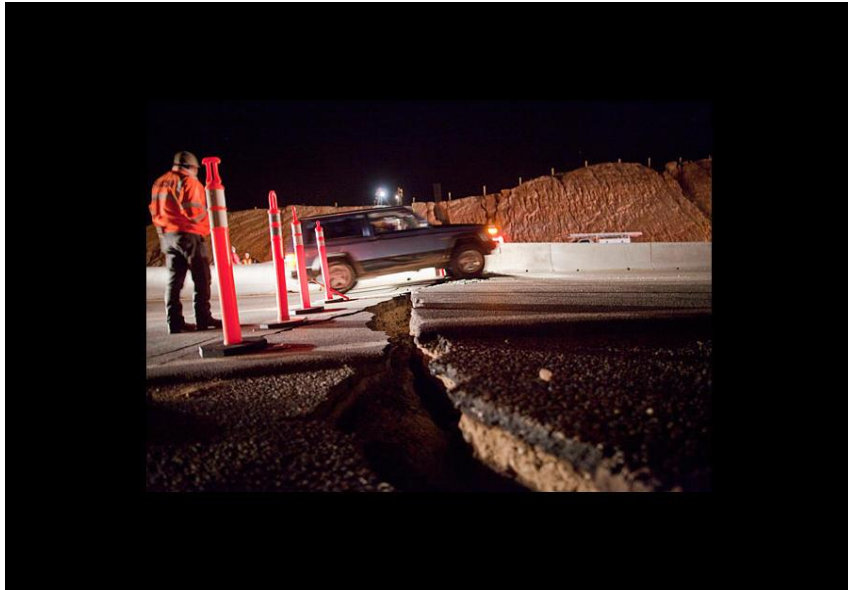
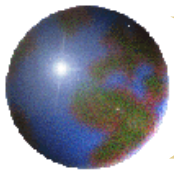


Table R301.2(1)

- ✚ **All locations in City of Yuma to be classified as Seismic Design Category D_0 (No Change).**



Chapter 3-Building Planning (cont.)



Table R301.2(1)



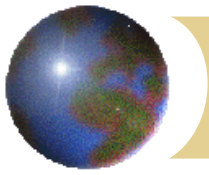
- ❖ **New Basic Wind Speed 115 mph (Ultimate/Strength Level).**



Chapter 3-Building Planning (cont.)

R303.4 Mechanical Ventilation

- ⊕ **Whole-House Ventilation is NOT required.**
- ⊕ **Amendments in Chapter 11 for the blower door test and whole-house ventilation included as OPTIONAL.**



Chapter 3-Building Planning (cont.)



R313

- ❖ **Residential fire sprinklers are NOT REQUIRED in detached one-and two-family dwellings (No Change).**
- ❖ **Residential fire sprinklers are REQUIRED in townhouses (No Change).**



Chapter 3-Building Planning (cont.)



R314.3 Smoke Alarms



Smoke alarms are not to be located within 3 feet of bathroom doors that have a shower or bathtub, where possible.

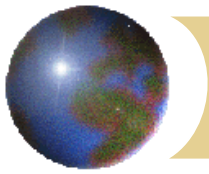


Chapter 3-Building Planning (cont.)



R315.1 Carbon Monoxide Alarms

- ✚ **Carbon monoxide alarms required in dwellings, and existing dwellings when work requiring a permit takes place (No Change).**
- ✚ **Required if there is an attached garage or fuel fired appliances in the home (No Change).**
- ✚ **New Requirement: Must be 120 volt wired in new construction, with battery backup.**
- ✚ **Installed outside of each separate sleeping area in the immediate vicinity of the bedrooms, and interconnected if more than one alarm is required.**



Chapter 3-Building Planning (cont.)

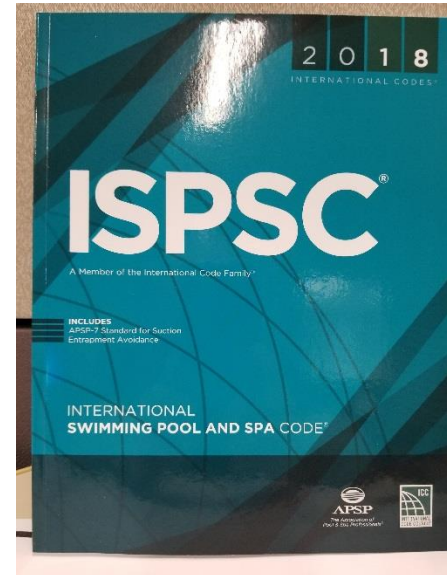
R324.1 Solar Energy Systems



- ✿ **Provisions included in IRC for Solar PV Systems.**
- ✿ **IRC Reference to 2017 NEC will require Rapid Shutdown feature for PV arrays (the City's adopted 2014 NEC Code also requires this feature).**

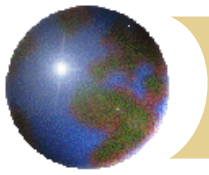


Chapter 3-Building Planning (cont.)



R326 Swimming Pools

- ❖ **Requirements for swimming pools & spas removed from Building Code to new stand-alone Swimming Pool & Spa Code (ISPSC).**
- ❖ **Includes pool dimensional standards for steps, radius at edges, diving boards, pool barriers, etc.**



Chapter 5-Floors



R507 Exterior Decks

- ✚ **Provisions greatly expanded, with added figures & tables, for materials, fasteners, footings/sizes, posts, beams & joists, attachments, ledgers and anchorages to the dwelling.**



Chapter 6-Wall Construction



Table R602.3(1) Fastening Schedule

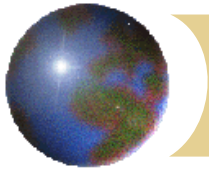
- ❖ **Ring shank nails now allowed for fastening wood structural panel sheathing.**
- ❖ **Fastening for roof sheathing increased to 6" O.C. at intermediate supports within 48" of Roof Edges, Gable Ends, and Ridges.**



Chapter 6-Wall Construction (cont.)

R602.3.1 Stud size, height and spacing.

- ✿ **Bearing stud heights up to 10' for 2x6 studs @24" O.C. as per Table R602.3(5) (No Change).**
- ✿ **Exception 2. Roofs up to 6' tributary area (12' span) may be supported to 18 foot height with 2x6 studs @ 16" O.C.; 20 foot height with 2x6 studs @ 12" O.C. Useful at tall entry porticos, rake walls, etc.**
- ✿ **Exception 3. Exterior load bearing studs up to 12' height as per Table R602.3(6), for 2x6@ 24" O.C., in Wind Exposure "B" (not "C"), and max. 24' spans for roofs/floors. 3/8" WSP Sheathing Req'd.**



Chapter 6-Wall Construction (cont.)

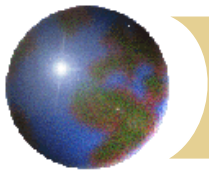
R602.7.5 Supports for headers.

- ✦ **Number of full-height studs is increased at ends of headers with larger spans.**

Examples:

Wind Exposure "C": 2 – Studs at openings 6' and greater; 3 – Studs at openings 10' – 14'.

Wind Exposure "B" (infill within City): 1-Stud at openings up to 9'

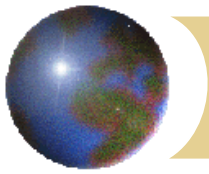


Chapter 6-Wall Construction (cont.)

R602.10 Wall bracing.

- ✚ **No major changes.**



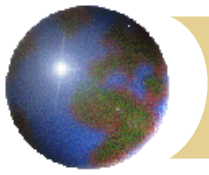


Chapter 7-Wall Covering

R702.4 Ceramic tile.



Table added with approved materials and listings for backer boards for ceramic tile at tub and shower areas.



Chapter 11- Energy Efficiency

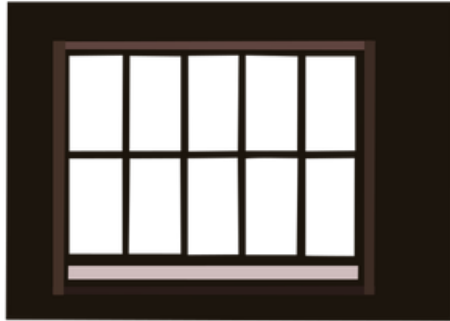
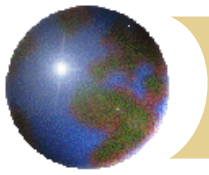


Table N1102.1.2

- ☛ **Window performance increased:
Max. SHGC value ≤ 0.25 ; and max. U-factor
value ≤ 0.40 .**

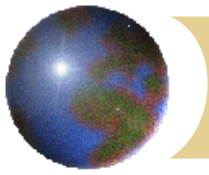


Chapter 11- Energy Efficiency (cont.)



Table N1102.1.2

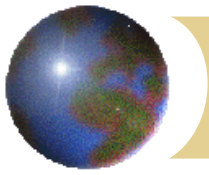
- **Ceiling/attic insulation, increased minimum R-value = 38.**
- **R-38 is acceptable in 2x12 joist space.**
- **R-30 will be allowed in renovations as determined per existing conditions.**



Chapter 11- Energy Efficiency (cont.)



Attic insulation/blocking at attic A/C Units and attic access openings.

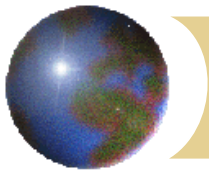


Chapter 11- Energy Efficiency (cont.)



N1102.3 Fenestration (Prescriptive)

- ❖ **Amendment for conditioned garages to allow standard insulated garage doors. Air diffusers at garage ceilings to include ceiling radiation dampers or ducts to be min. 26 Ga. Steel. Must be standalone A/C system for garage.**

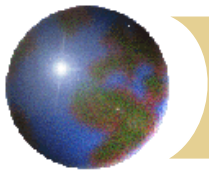


Chapter 11- Energy Efficiency (cont.)



N1102.4 Air leakage for Building Envelope (Mandatory)

- ❖ **Amendments allow for either visual inspection of building envelope (no change) or optional blower door testing.**

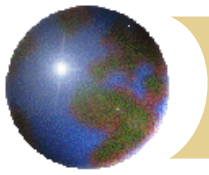


Chapter 11- Energy Efficiency (cont.)



N1103.3.1 Duct Insulation (Prescriptive)

- ✚ **Supply and return air ducts size $\geq 3''$ in attic to be insulated min. R-8 (R-6 less than 3'' size).**

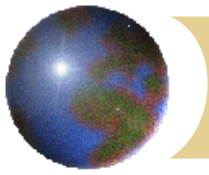


Chapter 11- Energy Efficiency (cont.)



N1103.3.4 Duct testing (Mandatory)

- ✿ **Lower allowed values for duct air leakage:**
 - **Rough-in test (w/ air handler): 4 cfm/100 SF**
 - **Rough-in test (w/o air handler): 3 cfm/100SF**
 - **Post construction test: 4 cfm/100SF**
- (Most Contractors already meeting this reqmt)**



Chapter 11- Energy Efficiency (cont.)



Several Sections amended as “optional”:

- ❖ **N1103.5 Service hot water systems**
- ❖ **Mechanical (whole-house) ventilation**
- ❖ **N1103.10.3 Swimming pool covers**
- ❖ **N1104.1 Lighting equipment - efficacy**
- ❖ **N1106 Energy rating index compliance alternative (optional compliance method)**



Chapter 25-Plumbing Administration

Section P2503.3.1 Drain, waste & vent piping.

- ✚ **Testing, changed from 10' to 5' water head.**
- ✚ **Air testing not allowed in IRC and will not be permitted.**

Chapter 27-Plumbing Fixtures

Section P2709.4 Receptor drains.

- ✚ **Approved shower flanged drains will be required at shower floors.**



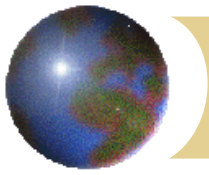


Chapter 28-Water Heaters



Section P2904.6.1 Requirements for T&P discharge pipe.

- ✚ **Amended T&P discharge to eliminate drain pan as an option.**
- ✚ **Added option for T&P to drain to a garage floor that is sloped and below the floor level of the dwelling.**



Chapter 29-Water Supply and Distribution



Section P2902.5.3 Lawn irrigation systems.

- ❖ **Required for new dwellings, to include a stub-out, backflow preventer (PVB), and one or more electric valves.**

Section P2903.5 Water hammer.

- ❖ **Provisions for water hammer arrestors to be enforced.**



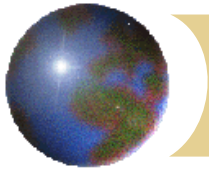


Chapter 30-Sanitary Drainage

Section P3003.9 PVC plastic.



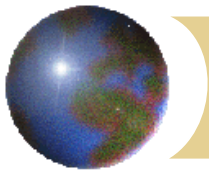
- ✚ **Recognition of transition glue for PVC DWV pipe connections with no primer.**



Chapter 31-Vents

Section P3103.1 Vent pipes terminating outdoors.

- ✚ **New provisions for vent heights at occupied roofs (7 feet above roof) and provisions added into code where vents are covered by solar pv panels.**

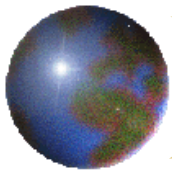


Chapter 34-Electrical General Requirements

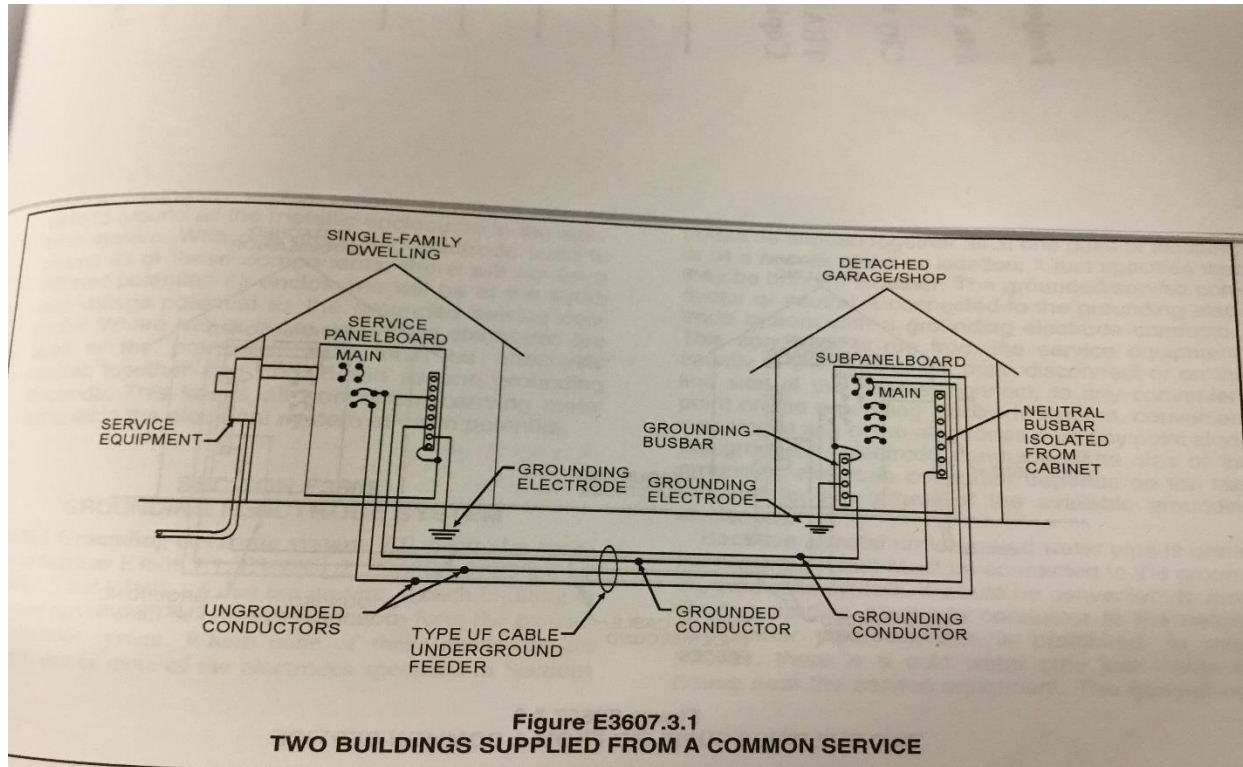


Section E3403 Inspection and approval.

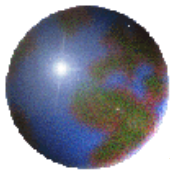
- ✚ **The permanent electrical power to the premises will be required at time of the Final Inspection.**



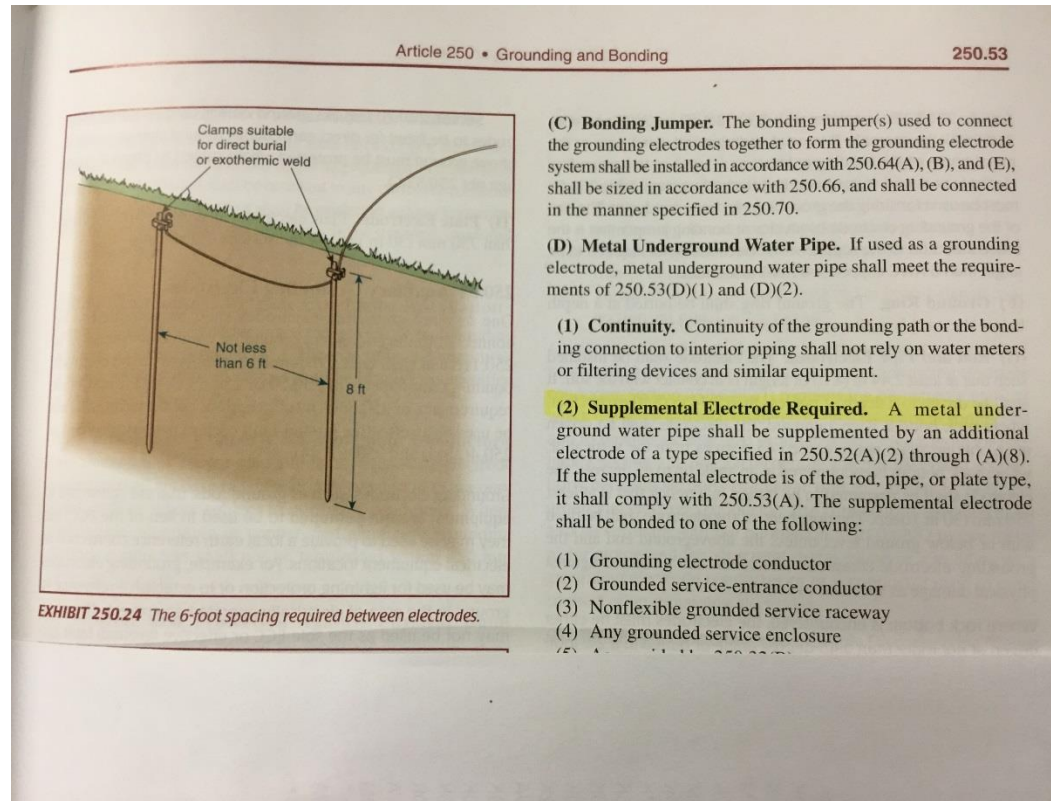
Chapter 36-Services



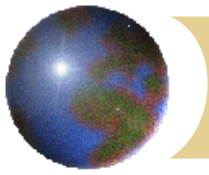
E3607.3.2 Grounded conductor, existing premises. Added exception to allow placard and lockable breaker in lieu of a disconnecting means at subpanels.



Chapter 36-Services (cont.)



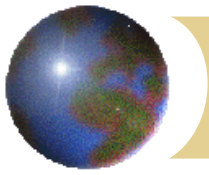
E33608.4 Supplemental electrode. Two ground rods are required if there is no UFER Ground or when earth resistance is greater than 25 ohms.



Chapter 39-Power and Lighting Distribution

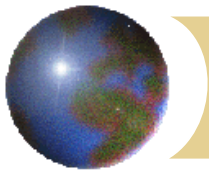


- ✿ **E3901.7 Garages. GFCI protected outlets are required in garages at each vehicle bay.**
- ✿ **E3902.10 Kitchen dishwasher branch circuit. GFCI protection is required for dishwasher outlets.**
- ✿ **E3902.16 Arc-fault circuit-interrupter protection. AFCI requirements expanded to include Kitchens and Laundry Rooms (not Bathrooms, Garages, or Outdoor outlets).**



Chapter 41-Appliance Installation

- ✚ **E4101.3 Flexible cords. Dishwashers to be cord-and-plug connected to a GFCI outlet.**

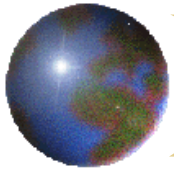


Appendix Q-Tiny Houses



New Appendix in IRC adopted with modified provisions for tiny houses:

- ✚ **Maximum 400 SF in area.**
- ✚ **Foundation required (no chassis/wheels).**
- ✚ **Relaxed provisions for ceiling height, lofts/loft access (ladders), loft guards, and emergency escape/rescue openings (openable skylights permitted).**



Review of Code Updates



Questions ???

